

Abstract of the Disclosure

A thermal pressure sensor monitors pressure by measuring effects caused by variations of thermal conductivity between a member and a substrate to which the member is adhered by stiction. The interface between the member and the substrate behaves as an extremely narrow gap. In a preferred embodiment the member is a bridge extending between a pair of cantilever arms. Two pressure sensors may be combined in a Wheatstone bridge configuration. A method for fabricating a pressure sensor according to the invention comprises forming a layer of oxide on a substrate, depositing a layer of material on the oxide layer, forming the member from the layer of material, removing the oxide layer and then bringing the member into contact with the substrate. The portion of the substrate under the member may be patterned with plateaus and valleys.